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THE PERIOD OF MENTAL RECONSTRUCTION.

WILLIAM C. RUEDIGER.

The George Washington University.

The following account is a statistical study of some of the experiences that are met along the highway toward intellectual maturity. The studies of Leuba¹, Starbuck², and Coe³, have thrown much light on the various ways in which the religious life develops, but less has been done for the corresponding aspects of the intellectual life. Burnham,⁴ has published some data on the place of doubt in intellectual and religious development, and Starbuck more or less incidentally gathered some data on what he called the period of reconstruction.⁵ His returns showed that some people experience subjective transformations of varying degrees of intensity quite apart from specific religious development. Such people are at times keenly conscious of experiencing far-reaching changes or enlargements in their intellectual points of view. It is with these transformations, their causes, their presence or absence, and the comparative frequency of various types that this study is concerned.

The study is based on returns obtained by means of the following questionnaire, supplemented by correspondence and personal interviews. Three hundred twenty-seven answers to the questionnaire were received, but of these only 282 were used in preparing this paper. The purpose in rejecting the others was to avoid the fallacy of selection. The 282 came from groups in which very nearly all answered.

QUESTIONNAIRE.

Read All the Questions Before Answering Any.

Please answer by placing "yes" or "no" before the question or statement.

Mark the degree of certitude of all your answers. If you are sure of your answer, mark it A. If fairly sure, mark it B. If in much doubt, mark it C. If it is only a random guess, mark it D.

¹ A Study in the Psychology of Religious Phenomena, *American Journal of Psychology*, Vol. VII, p. 309 f.

² *The Psychology of Religion*, London and New York, 1899. Also *American Journal of Psychology*, Vols. VIII and IX.

³ *The Spiritual Life*, New York, 1900. Also *Psychological Review*, Vol. VI, p. 484 f.

⁴ The Study of Adolescence, *Pedagogical Seminary*, Vol. I, p. 175 f.

⁵ *Op. cit.*, chapter XXII.

The data obtained by means of this questionnaire are to be used for scientific purposes and are strictly confidential.

I. Consider the history of your mental (intellectual and moral) development. Which of the following has it been most like?

(II) 1. My mental development has been on the whole gradual, but several incidents in my life have given it noticeable impetus, without, however, introducing any great changes.

(V) 2. In my mental development I experienced one pronounced awakening or transition that gave me a point of view and unified my conception of things, but otherwise my mental development has been gradual.

(I) 3. My mental development has been gradual, so that my attention has never been attracted by subjective changes or transitions.

(IV) 4. In my mental development I have experienced one pronounced awakening or transformation that gave me a point of view and unified my conception of things. Since then, and to some extent before, I have been conscious of a number of smaller transitions which gave me new points of view and deeper insight.

(III) 5. In my mental development I have experienced a small number (say 2-10), well marked transitions. I have felt at irregular intervals that I had gained new and important points of view.

II. If, in your mental development, you have experienced a noticeable or pronounced transition:

1. What was your age when it occurred?

2. How long did it last?

3. Was it preceded or accompanied by doubt? By depression?

4. Was it preceded or accompanied by a calm state of mind?

By elation?

5. In the transition, did you feel secure and that your mental foundations were becoming firmer?

6. In the transition, did you feel that old foundations were crumbling and that you were 'at sea'?

7. Was the transition followed by doubt? By depression?

8. Was the transition followed by a calm state of mind? By elation?

9. Was the transition followed by a rejection of former beliefs?

10. Was the transition followed by a readjustment of former beliefs?

11. Was the transition followed by consciously holding contradictory positions in science, religion, etc.?

III. By which of the following was this transition in your mental development most influenced? Mark with an X the one of the following that influenced you most; with a Y the next; with a Z the next:

1. The reading of any particular book or books. (If so, give name.)

2. The study of any particular subject. (If so, name it.)

3. The influence of a person. (If so, a teacher, pastor or who?)

4. Entering college.

5. Joining the church.

6. The death of a relative.

7.

IV.

1. Were you in childhood, before the age of twelve, taught religious beliefs or dogmas? If so, name church.

2. Did you receive little or no dogmatic religious instruction in childhood?

3. Have you experienced religious conversion? At what age

V. What was your occupation or schooling:

- | | |
|-----------------------|------------------|
| 1. Between 10 and 13? | 5. Between and ? |
| 2. " 13 " ? | 6. " " ? |
| 3. " " ? | 7. " " ? |
| 4. " " ? | 8. " " ? |

(Fill out the blanks to suit your case, bringing it down to the present.)

VI.

1. What is your sex?
2. What is your present occupation?

Date.....Name.....

(If signing would keep you from answering frankly, do not sign.)

The returns that were used fall into two main groups, based on the immediate occupation in which those answering were engaged, and on the manner in which the returns were obtained. Those in one group were graduate students when they answered, and those in the other were teachers. I shall designate these groups respectively 'Graduate Students' (G. S.) and 'Teachers' (T).

The G. S. group comprises 170 returns in all. Eight of these were obtained through the kind co-operation of Professor W. C. Gore of the University of Chicago, 17 came from a section of the senior class in Teachers College, and the remaining 145 came from graduate students in Columbia University, mostly students in Teachers College. These were nearly all obtained during class time. With but one exception, returns were thus received from all to whom the questionnaire was submitted.

The returns from the group designated 'Teachers' came in the main from high school, normal school, and college teachers, and number 112 returns. Fourteen of these came from the Winona, Minn., High School, having been kindly obtained for me by Prin. W. A. Bartlett and Supt. C. R. Frazier. The remaining 98 I obtained from friends and acquaintances by mail. I first made a list of 50,—25 men and 25 women,—to each of whom I wrote a personal letter at the time the questionnaire was submitted. Forty-eight, or 96 per cent., sent returns. Having been so successful with this group, I repeated the effort with an additional group of 58. Of these 50, or 86 per cent., sent returns. The percentages of the different types of experiences in this group correspond so closely to those of the group of fifty, and to those of the G. S. that I feel safe in using them. Without a criterion with which to test them I should not have used them in this part of the study. Whatever the cause of the selection may have been, it evidently was not a certain type of experience called for by the questionnaire.

Although the 282 returns used in this study are practically unselected, in the technical sense of that term, the group as a whole is highly selected. It is restricted to what may be

called the upper stratum of the teaching profession. Nearly half of those answering were actually engaged in teaching, and the others had been in that work and were preparing to go back into it.

This restriction was intentional. It gives us a group that is homogeneous and so may be compared with other homogeneous groups. It would be interesting to know, for example, how the clerical, the medical, and the legal professions compare with the teaching profession in the experiences here represented.

In presenting the data I shall follow the order in which they were called for by the questionnaire. The fallacy of selection having been avoided and the numbers being fairly large, quantitative statements may be given.

The data most fundamental in the study were elicited by the first topic of the questionnaire. It called for the experience of reconstruction, with which the study is primarily concerned. The five sub-heads, or classes, under this topic form a graduated series, the order of which is indicated by the Roman numerals in parentheses. These numerals were not printed on the questionnaire as used. The classes were intentionally mixed up so as to insure a more unbiased selection. It was thought that the person answering would thus be less likely to place himself at the median and be more likely to select the type of experience that most nearly fitted his case.

The experiences coming under this head were divided into five classes, not because it was thought that this exhausted the possibilities, but because that number of differentiations could easily be made and because it seemed to cover the field with sufficient minuteness. Actually, there are probably no discrete classes at all. It is more likely that the different degrees of intensity of the experience form a continuous series, approximating the normal probability curve in its form of distribution. The data present considerable internal evidence that this is the case, the mode falling about midway between Classes II and III.

The data obtained under this topic are given in Table I. They are given separately for the sexes and for the two main groups above indicated. As only six, three men and three women, placed themselves in Class V, these are here, as throughout the study, included in Class IV, from which they do not materially differ.

The different sections of the table agree tolerably well among themselves. The variations are not greater than might be expected from the number of returns used. The four classes are all nearly the same size throughout, Class II alone showing a tendency to be larger than the others. This tendency, how-

TABLE I.

Class.	Men		Women.		Total	
	Number	Percent	Number	Percent	Number	Percent
Graduate Students						
I	25	26	12	16	37	22
II	33	35	31	42	64	37
III	18	19	16	21	34	20
IV	19	20	16	21	35	21
Teachers.						
I	15	26	13	24	28	25
II	15	26	15	28	30	27
III	17	29	12	22	29	26
IV	11	19	14	26	25	22
G. S. and T.						
I	40	26	25	20	65	23
II	48	31	46	35	94	34
III	35	23	28	22	63	22
IV	30	20	30	23	60	21

ever, is manifest chiefly in the G. S. group, which suggests that it may be explained in part on the basis of maturity.

Age was not directly called for, but it was usually given under Topic V. When it was not so given I succeeded nearly always in ascertaining it from other sources. The average age in the G. S. group was approximately twenty-nine years, and that of the T. group was thirty-three years. This difference of four years would enable a relatively larger number from Class II of the former to pass over into Classes III and IV than would be likely to be the case in the latter. The fact that the returns from the G. S. group were marked more hastily than the others, owing to a limitation of the time to twenty-five minutes, may also have tended to swell Class II. This class appeared first on the list, which exposed it to the factor of primacy.

No marked sex difference is manifest from the table. If any exists, it again occurs in Class II which is quite uniformly larger for the women than for the men. If an explanation for this is necessary, it cannot be sought in maturity, for the women average about the same age as the men. It would be explained on the assumption that women are more conservative than men, so that they do not give themselves up so readily to rapid and far-reaching mental transformations. As some of

the data to be taken up later indicate such a difference, this point will be referred to again.

Psychologically, of course, these four types of mental development are equally significant. They are, perhaps, all equally normal and one leads to culture and insight as well as another, a statement well borne out by the data. There are returns from people of distinction in science and philosophy in all four classes.

Although these four classes are all equally significant as types of mental development, they are not equally spectacular. Classes III and IV are more picturesque than I and II. Descriptions of subjective experiences were not called for, aside from those briefly given in the questionnaire, nevertheless, a number of those who sent returns by mail gave such descriptions, and a few others I obtained from members of Class IV on request. It would consume too much space to publish them all, or even many of them, but two of Class IV are inserted. It must not be inferred, however, that all the experiences even in this class are as definite and clear-cut as those cited.

Up to the age of nineteen or twenty I had retained a certain orthodox view of the world, though never a church member. But my interest in scientific reading upset me. I went through somewhat the disintegrating crisis described in *Robert Elsmere*, and the reading of the book brought me to the constructive outcome where the higher relations of religion and science seemed clear.

Although I had been given little religious instruction in youth, I absorbed an 'orthodox' view of the world which I had no occasion to question. At the age of twenty-two the doctrine of evolution, the writings of Horatio W. Dresser, and the stimulating influence of a teacher gave me new insight. I obtained a conception of the world as an evolving, progressing unity, and I felt that I now understood. The 'orthodox' views caused some friction, but on the whole the accompanying emotional tone was one of elation. To make the major readjustments took me about one year.

The following citation from John Stuart Mill's *Autobiography*, page 66, is an excellent illustration of the extreme type of the reconstructive experience.

When I had laid down the last volume of the traité¹ I had become a different being. The 'principle of utility' understood as Bentham understood it, and applied in the manner in which he applied it through these three volumes, fell exactly into its place as the key-stone which held together the detached and fragmentary component parts of my knowledge and beliefs. It gave unity to my conception of things. I now had opinions; a creed, a doctrine, a philosophy; in one among the best senses of the word, a religion.

The experiences in Class III resemble those in Class IV. They are usually less acute, although not always, and include

¹ Dumont's *Traité de Legislation*, three volumes.

a smaller section of the mental life, thus giving opportunity for several to occur. One person distinctly described seven and another five, but generally the number is smaller. To make this phase of the matter concrete, a number of first-hand descriptions should be cited from each class, but space does not permit this.

The experiences of Classes II and I are progressively less pronounced than those of the other two classes. People who placed themselves in Class II were conscious of times when their mental growth was accelerated, when they came upon new unifying principles, but the matter made little impression on them. The people in Class I realize that their points of view have changed in the course of time, but they can point to no specific influences or occasions that have brought about the change. For example, one person responding by mail said :

"My growth has been gradual,—no sudden transitions or changes. . . . I need to think a matter over long before I adopt a new notion. By that time I often forget when I got it."

Topics II and III of the question list were meant to apply mainly to Class IV. Class I was by the nature of the case excluded, but nearly all the members of Class III supplied data, and many of Class II did.

The data elicited by the first two questions in the second topic can be satisfactorily considered only in relation to Class IV, although members of Classes II and III also attempted to answer them. These questions request (1) the age at which the transition occurred and (2) the length of time it lasted. All the members of Class IV, thirty men and thirty women, answered the first question, and twenty-one men and twenty-four women gave specific times under the second.

The ages at which the transition occurred vary for the men from 14-42 years, with an average of 22.2 years and a median of 21 years. Forty-seven per cent. of the ages fall between 18 and 22 inclusive, 63 per cent. between 18 and 25 inclusive, and 16⅔ per cent. fall below 18 years. For the women the ages vary from 13 to 32 years, with an average of 20.25 years and a median of 19.5 years. Fifty-three per cent. of the ages lie between 18 and 20 inclusive, 70 per cent. between 18 and 22, and only 10 per cent. fall below 18 years. The men show a greater range of variation than the women and average nearly two years older. This difference agrees well with the difference in the time of the advent of puberty in the two sexes, which indicates that the period of reconstruction is likewise a function of maturity, in part at least.

The average ages found by Starbuck are higher than those given here.¹ He found them to be 24 years for the women and

¹*Op cit.*, p. 279.

24.5 years for the men. How to account for this difference is not clear. The fact that the ages in Starbuck's returns were given incidentally may account for it in part, a person having met the experience late being more likely to mention it; and it may in part also be owing to the fact that he studied miscellaneous groups. A person taking a college course and following an intellectual calling may meet this period earlier than one who does not.

The length of time occupied by the transition is not so easily given as the age at which it occurred. Few, if any, had any hesitation in saying when reconstruction began, but many found it difficult to say when it ended. The times given by the men vary from a month, or less, to three years, and those given by the women vary from three months to four years. Seventeen per cent. of the men and ten per cent. of the women indicated that the experience is continuous. One-third of these admitted that they were in the midst of the process. The remaining two-thirds may either be similarly explained, or they merely continue to feel the elation coming from a unified mental life.

The average time spent in the transition by the men was 1.6 years and by the women 2.1. The women evidently take a longer time to adjust themselves to the new point of view than the men. This is in harmony with the common observation that women are, as a rule, more conservative than men. In the reconstruction, usually long cherished, but now inconsistent views, must be modified or discarded, and although the women are intellectually convinced of the new truths, their feelings linger.

The ages at which the transition occurred as given by Class III are not so reliable as those given by Class IV, where all answered the question, but they may be mentioned in passing. Fifty-one ages were given by the men and 25 by the women, coming in each case from about half that number of persons. The ages vary from 8-40 for the men, with an average of 20, and from 10-32 for the women, with an average of 20.1.

The data gathered by questions 3-11 under Topic II are condensed in Table II. The percentages of the positive answers only are given. Many negative answers were also recorded, but the tendency is for people to leave a blank where a positive answer cannot be given.

It is clear that all the features having to do with 'storm and stress' increase as we pass from Class I to Class IV. In fact, the column for Class I is practically blank.

A marked falling off in doubt and depression is noticed after the crisis has been passed, and there is a corresponding increase

TABLE II.

Class	Men					Women					M. & W.
	I	II	III	IV	Total	I	II	III	IV	Total	
During transition.											
Doubt.....		15	63	77	34		13	36	70	29	32
Depression...		6	43	53	22		6	29	60	22	22
Calm.....		21	34	47	23		8	29	33	17	20
Elation.....		10	23	23	13		2	11	33	11	12
Secure.....		35	63	70	38		17	53	50	30	35
'At sea'.....		10	51	60	27		6	32	63	24	26
After transition.											
Doubt.....		8	37	20	15		6	18	37	15	15
Depression...			14	17	7			14	27	9	8
Calm.....		29	54	63	34		13	45	47	26	30
Elation.....		13	37	43	21		4	29	43	18	20
During and after transition.											
Rejection....		21	43	50	26		6	21	43	17	22
Readjustment		35	78	80	44	4	19	53	70	36	40
Contradictory		8	20	23	12		2	11	47	14	13

in calm and elation.¹ Those who were afflicted with doubt and depression during the transition frequently gave a positive answer also under 'calm,' and sometimes even under 'elation,' but they usually indicated that there was an alternation of moods. A similar alternation was also frequently indicated between feeling secure and feeling 'at sea.'

'Storm and stress' is not a necessary accompaniment even in Class IV. Eighteen per cent. of this class report that they experienced no doubt, depression, or feeling of 'at sea'; this in spite of the fact that 64 per cent. of this 18 per cent. had received religious instruction and that 73 per cent. had readjusted their religious beliefs. These percentages are almost identical with those of Class IV as a whole, which are 65 per cent. for religious instruction and 75 per cent. for readjustment of beliefs. This is strange when it is noted that it is usually the incompatibility between early religious teachings and later scientific and philosophic instruction that causes the friction. What it seems to indicate is that storm and stress is, in the main, a function of temperament. No matter what mental readjustments have to be made, some people do this with little or no emotional disturbance.

The intensity of the storm and stress period in those that do

¹ A number of those that answered the questionnaire suggested that the word 'satisfaction' be substituted for 'elation.' Had this been done, the caption would no doubt have drawn a still larger percentage of positive answers.

experience it varies greatly. Although not called for, three mentioned that it was very painful, and two of these had contemplated suicide. Taking the rubric 'doubt' as a criterion of storm and stress, 32 per cent. of the people studied passed through such a period. This figure may be slightly too low as 13 in Classes III and IV, making 5 per cent. of the total number, left Topic II unanswered, but the percentage would certainly not rise above 38 or 40. This is not necessarily at variance with the assertion of Starbuck (*o. c.* p. 214.) that over 60 per cent. of average American young people pass through such a period. His figures include the storm and stress frequently experienced at the onset of adolescence, while ours include only the period of reconstruction.

Questions 9, 10, and 11 are not specifically 'storm and stress' questions and so require separate mention. Seventeen per cent. in Class IV indicated that they rejected former beliefs entirely. Seven per cent. did so in Class III, and 2 per cent. in Class II. The others who answered that question in the affirmative also answered the next question, usually indicating that there was partial rejection and partial readjustment. The large number indicating a readjustment of former beliefs shows this to be a constant accompaniment of mental reconstruction. The fact that it is so would lead one to think that certain types of religious and other dogmatic instruction are responsible for at least some of the storm and stress that exists.

It is not explicitly revealed by this study to what extent storm and stress is a phenomenon of individual, and to what extent of social psychology; to what extent it is a result of the process of growth and development, and to what extent it is a result of instruction and environment during childhood.

No matter how narrow and dogmatic the instruction has been, a certain type of temperament seems to be necessary to bring about emotional disturbances later. This is evidenced by the fact mentioned above, that some people who have had much dogmatic instruction readjust their beliefs without storm and stress, and by the figures of Table IV below. The percentages of those having received much religious instruction are nearly the same in all four classes.

No striking sex differences are revealed in Table II. In the last three items, however, the figures are quite uniformly divergent for the sexes, which would indicate the existence of such differences. Twenty-six per cent. of the men rejected in whole or in part their former beliefs, as against 17 per cent. of the women; and 44 per cent. of the men readjusted their beliefs, as against 36 per cent. of the women. This rejection and readjustment of long cherished beliefs are radical acts, and the fact that the women do this less than the men is again in har-

mony with the assumption that they are more conservative. Still, this difference in the figures might be explained otherwise, an explanation, however, that does not seem to me to have much weight. It is indicated in Table IV that the women of this group have received slightly less religious instruction than the men, and in Table III that they are less attracted by science and philosophy and therefore study them less. But it is these subjects that are most likely to unsettle certain forms of beliefs.

The average percentages for holding contradictory beliefs are 12 for the men and 13 for the women. But in Class IV, where the issue is clearest, the percentages are respectively 23 and 47, indicating that in this class the practice is fully twice as frequent among the women as among the men. This would indicate again the more conservative nature of women. They find it hard to discard former beliefs of whose inconsistency they have nevertheless become intellectually convinced.

In drawing this inference, I have not forgotten that just the opposite conclusion could be drawn from the figures under Classes II and III. I noticed frequently in gathering the data that the women were much more cautious, and apparently secretive, in marking this item than the men. They appeared unwilling to confess that they had held contradictory beliefs. Some answered the question in the affirmative and then erased the answer. This indicates that all the figures from the women should be higher in order to make them comparable with those from the men.

The causes influential in bringing about the transition were elicited by the rubrics under Topic III, and are condensed in Table III. The percentages are based upon the entire number of entries that were made. In all there were 490 of these, 253 by the men and 237 by the women. Counting only those who made entries, this gives an average of 2.4 per man and 2.5 per woman.

TABLE III.

	Men	Women
Personalities.....	35 per cent.	45.4 per cent.
Science and Philosophy.....	33 "	18 "
Psychology.....	4 "	3.4 "
Literature.....	5.6 "	8.3 "
Entering College.....	8.6 "	16.3 "
Joining Church.....	6 "	2.6 "
Miscellaneous.....	7.8 "	6 "

In classifying these entries I made originally ten classes, respectively for (1) Personalities, (2) Philosophy, (3) Science, (4) Social Science, (5) Bible and Science of Religion, (6) Psychology, (7) Literature, (8) Entering College, (9) Joining Church, and (10) Miscellaneous. Under the last head I placed unnamed items as "a book" or "a subject of study," and such subjects as "travel" that were mentioned but seldom and would not logically fall in the classes made. Deaths, which composed 3 per cent. of the influences for the men and 6 per cent. for the women, were classified under personalities, regarding them as the subtraction of personalities from the environment. The figures for philosophy and the different sciences, with the possible exception of psychology, all showed the same trend and so they were combined.

The sense in which these things may be regarded as causes of the transition cannot be expressed in a sentence. They differ in this respect both for the items themselves and for the people mentioning them. A personality, as a teacher, may do one thing for one person and quite a different thing for another person, and its influence may never be like that of metaphysics, for example. A teacher in the classroom might supply the principle for reconstruction, or he might merely suggest a fruitful line of reading. In conversation, in letters, and on the blanks, the statement was frequently made that the items mentioned should not be regarded as sufficient causes, but rather as inciting causes. They precipitated a reconstruction for which the mind had long been getting ready through study and experience. The particular influence serves usually to supply, or lead one to find, a unifying principle for things that are already in the mind, but which have heretofore been more or less unrelated. The development is at bottom an educational one that has become ripe for integration. In itself probably no influence has power to reconstruct. To be efficacious, the mind must be ready for it, and what would influence one might not influence another.

The difference between the people that are conscious of transitions and those that are not is probably in the main temperamental. This means that they instinctively react differently to similar situations. Some of the persons in Classes I and II are so conservative, or cautious, or reactionary regarding new ideas that they do not adopt them outright, but 'get used' to them so gradually that they are never really conscious of how they got them. Others again may be quite the opposite in attitude and continually reconstruct their mental content as they pass along the highway of learning and experience, so that large transitions are precluded. Other attitudes, or native and acquired mental equipments, might be posited to explain all the various types of experience in this respect.

A perusal of Table III reveals a number of sex differences that are worth noting. As would be expected, personalities count more with women than with men. They form nearly one-half the influences mentioned by the women and only about one-third of those mentioned by the men. Teachers appear to exert about equal influence over the sexes. They comprised 18 per cent. of the items for the men and 21 per cent. for the women. This leaves a balance of 17 per cent. and 24 per cent. for personalities closer than teachers, such as parents, brothers, sisters and friends, or a ratio of 3-2 in favor of the women. Science and philosophy, on the other hand, count more with men than with women, in the ratio of nearly 2-1. The fact that men study these subjects more than women, and therefore are influenced more by them does not explain away this difference in the figures, but points in the same direction. The reason why men study them more is not so much conventional as it is because they are more attracted to them. Literature is not given as a cause as much more frequently by the women than by the men as might have been expected. But when it is known that Emerson and Browning are the authors most frequently mentioned, this may be accounted for. The writings of these authors might almost as well have been classed with philosophy, for they supply the same kind of unifying principles. Entering college, by which those answering meant either the event of going off to college or the influence of the college course, appears decidedly more momentous for women than for men. This is very likely owing to the fact that it forms more of a contrast in their lives than it does in those of the men. Joining church, on the other hand, impresses the men more than the women. The explanation is probably similar to that of the preceding, but is reversed for the sexes. Boys are more likely than girls to get away from the influence of the church, and so coming back and joining it forms more of a step for them.

The fact that the relative amount of influence exerted by the various items was called for has not been taken into consideration in the preceding discussion. It was faithfully given but each item was assigned with about equal frequency to first, second and third places, so that weighting seemed unnecessary.

Topic IV, pertaining to religious instruction and to conversion, was included especially for the purpose of separating the religious experiences from those that are more purely intellectual. That the period of mental reconstruction is a phenomenon independent of religious conversion is indicated by the data gathered by question 3 under this topic. Unfortunately the second part of this question, calling for the age of conversion, was not on the paper at first. I added it after more than half

the data had been collected. Nevertheless I got the ages of conversion from 32 men and from 20 women. These range for the men from 11 to 24 years with an average of 16 and a median of 15, and for the women from 10 to 25, with an average of 14.8 and a median of 14. For the men there seem to be two modes, one at 13-14 and one at 18, and for the women there is one at 14. All these figures show that conversion is an earlier phenomenon than mental integration, on the average nearly six years earlier. The same fact also came to light in Starbuck's returns. In Class IV, I obtained the age of conversion from 12, or from 20 per cent. In only two of these instances did the ages for the two experiences coincide.

TABLE IV.

Class	Religious Instruction			Conversion		
	Men	Women	Total	Men	Women	Total
I	60	48	55	35	16	28
II	69	59	64	50	22	36
III	71	75	73	46	54	51
IV	70	60	65	50	37	43
Aver.	69	61	64	45	31	39

The rest of the data gathered by this topic are summarized in Table IV. It has already been pointed out that the amount of religious instruction received in childhood does not correlate in any significant way with the experiences of mental reconstruction. Some correlation exists, however, between mental reconstruction and the experience of conversion. This is in harmony with the assumption that the persons falling toward Class I in the curve of distribution adjust themselves more gradually and with less subjective upheaval in all things. They are more calm and deliberate in temperament than those at the other end of the curve, who are more emotional.

In all, 69 per cent. of the men and 61 per cent. of the women said that they had received much religious instruction in childhood, and 45 per cent. of the men and 31 per cent. of the women had experienced religious conversion. Why the men should experience conversion more frequently than the women seems to require explanation, for women being more emotional, and presumably more religious than men, the opposite would naturally be expected. In part, the explanation very probably again strikes back to the fact that boys get away from church and home influence more than girls. After having sowed some 'wild oats' they come back to their former sphere of life, pass-

ing through the process of conversion in doing so. Girls pass out of the influence of the home and the church less frequently than boys and so have less occasion to become converted. The greater conservatism of women may also enter into the explanation. They are less given to abrupt changes than men.¹

In all 110 answered as having experienced conversion. Seventy-eight per cent. of these had received much religious instruction and 22 per cent. little or none. Although the opposite might again be expected, the explanation is probably not far to seek. To have received religious instruction means to have been brought up in a religious home. The members of such a home are most likely to come under the influence of church services, revival meetings, and other factors that stimulate conversion. No doubt heredity is also a factor. The predisposition in church-going families for deep religious experiences may be inherited like other traits. Furthermore, religious instruction in childhood is taken much as a matter of course, having little meaning attached to it, hence when conditions become ripe to give it content, the experience is likely to overwhelm the mind. All former instruction appears in a new light and gets a significance essentially new. But this cannot well be the case with those that have received little or no such instruction. They have nothing at hand to be made meaningful and so are more free to go about the matter intellectually and become adjusted gradually to the deeper meanings that the experiences of life unfold.

Topic V calls for biographical items pertaining to occupation and schooling. It was thought that irregular schooling, or getting one's education late in life, might be a cause contributing to transitions consciously experienced. A few instances point to the conclusion that this may be a subsidiary factor, but it certainly does not enter into many cases.

It will be of interest to give a brief account of the returns that were not included in the foregoing data. These are condensed in Table V.

Fifty blanks, together with a return stamped envelope and a request for a reply, were sent to Methodist ministers, and the same number to members of the Chicago Board of Trade. The names in each case were taken in alphabetical order from published lists. Eight in each group returned the blanks unanswered, while twelve clergymen and three business men kindly supplied data. The remaining thirty clergymen and thirty-nine business men were not heard from.

¹ It is not meant, of course, that all women are more conservative than men, but that they are more so on the average. It might well be that the most conservative person in the world is a man, and the most radical person a woman.

TABLE V.

Class	I	II	III	IV	Blank
Clergymen	1		3	8	8
Business Men	1	2			8
Teachers	4	2	1	1	1
Miscellaneous	4	9	1	8	
Total	10	13	15	17	17

The fact that all but one of the clergymen that answered had passed through periods of reconstruction is no doubt significant, and it is to be regretted that all did not supply data. It may be equally significant that none of the business men answering had experienced reconstruction, but three replies is manifestly too small a number to bear much weight.

Fifty blanks were also sent to Wisconsin high school teachers, but with an unstamped return envelope. Nine replies were received, as given in the table. I wish now that I had stamped the envelopes so as to make the data more nearly comparable with those from the clergymen and from the business men. The fact that my supply of blanks gave out (600) made it impracticable to extend the distribution.

The miscellaneous group comes from two city superintendents and from a friend at Columbia University. To the superintendents, who had expressed a willingness to assist me by submitting the blanks to their high school teachers and their grade principles, I sent 25 to one and 75 to the other, and received in return 5 and 12 respectively. The remaining five returns, collected by the friend above mentioned, came from people that were neither teachers nor graduate students. Of five requests for assistance sent to university people, only one brought a favorable response.

The data of Table V were obtained under such a variety of conditions and the numbers in each group are so small that little can be inferred regarding selective influences. They do indicate, however, that reliable questionnaire data can be obtained only under exceptional conditions, such as were mine at Columbia University. In addition to returns from friends and acquaintances, one must be able to get people in groups, such as are afforded by school or college classes. But even then it takes no less pains to gather reliable data by means of the questionnaire method than by any other legitimate method. That reliable data may be gathered in certain departments of psychology by means of the questionnaire method, supple-

mented by correspondence and personal interviews, is borne out by the results obtained by Galton and others. The method does not apply everywhere in psychology, but neither does any other method apply everywhere. Taking it for granted that the subject of this study was worth investigating, by what other method could this have been done?

The reliability of measurements based on such methods as 'right and wrong cases' and 'average error' may be calculated mathematically, but this is not so readily done with questionnaire data. One may obtain the respondent's own degree of confidence in his answers, but just what this is worth is not known; and one may get him to repeat his answers after he has forgotten how he answered on the former occasion, and then compare the consistency of the results. In fact, one aspect of the reliability of a person's answer might, and should, be extensively investigated by the second method suggested.

TABLE VI.

Certitude Blank			A		B		C		D	
Topic	No.	%	No.	%	No.	%	No.	%	No.	%
I	61	21.5	158	56	59	21	4	1.5		
II	619	45	551	40	175	12.5	29	2	7	.5
III	302	68	94	21	36	8	14	3	1	
IV	435	69	177	28	14	3	1		1	

On the accompanying questionnaire the request was made of the person answering to indicate his degree of certitude. He was requested to mark his answers A, B, C, or D, according as he was sure, fairly sure, in much doubt, or making a random guess. The data, in probably a too much condensed form, are given in Table VI. As far as certitude was indicated, it is of an unexpectedly high degree. Comparatively few answers were marked C or D. Under Topic I all the C's and 63% of the B's were given by members of Classes I and II, those that had experienced no pronounced transitions. The degrees of certitude of the separate questions under the other topics were also not distributed in equal proportions.

On the average approximately half the answers were left blank as to certitude. About ten per cent. of these I investigated by means of personal interviews and found that nearly all felt certain and wished their answers to be marked A. Only two asked to have theirs marked B. I received the impression that when people are certain they feel that they need not indicate that fact.

Before the questionnaire was printed in the form in which it was used, a trial copy was prepared and mimeographed. This

varied but little from the form that was used, and was answered by twenty-seven persons that later also answered the printed copy. The influence of memory from the first to the second report was slight because an interval of two months elapsed between the two, and none of the people expected to have the blank submitted to them again.

Comparing the answers in Topic I, 16 of the 27 were alike in the two returns, 6 had checked adjacent classes, *i. e.*, they had, for example, moved from Class I to Class II, or *vice versa*, and 5 had checked in such a way that the two returns seemed clearly discrepant. But when the answers to Topics II, III and IV were compared the discrepancies between the two returns were quite inconsiderable. Practically the same experiences of doubt, depression, elation, religious experience, etc. were indicated, and the causal influences mentioned were also nearly the same, differing only in minor details. This suggested to me that the answers to the detailed experiences called for under Topics II, III and IV were more reliable than the classification of those experiences called for by Topic I. This proved valuable, for it justified me in a few instances in placing the respondent in a different class from the one he had himself indicated. In a few returns the answers under the later topics clearly showed that the wrong class was checked under the first topic. Wherever possible, however, I consulted the person that supplied the data before making a change. These consultations confirmed the suggestion that the answers to the later topics were more reliable than those to the first.

Under the space for the respondent's signature were placed these words: "If signing would keep you from answering frankly, do not sign." Eight and one-half per cent. of the men and 14 per cent. of the women did not sign. Most of these, however, were members of a large class in which the instructor called especial attention to the fact that the signature would not be necessary. There was very little spontaneous tendency to withhold the signature.